

REMARKS

The Office Action dated February 6, 2003, has been carefully considered. In response to the Office Action, Applicants have amended the application. Applicants request that the Examiner consider the following remarks, and then pass the application to allowance.

Pending Claims

Claims 1-12 are now pending. Claims 13 and 14 have been canceled.

Subject Matter Indicated Allowed or Allowable

Applicants gratefully acknowledge the indication of allowability of Claim 3, subject to its re-writing in independent form. Claim 3 has been so re-written, and its passage to allowance is earnestly solicited.

Art Rejection Under 35 U.S.C. § 102(b)

Claims 1, 2, 4-6 and 8-12 were rejected under 35 U.S.C. § 102(b) as anticipated by Machida (U.S. Pat. No. 4,883,710).

Claim 1, from which Claims 2, 4-6 and 8-12 depend, has been amended to recite a specific garnet ferrite composition for the recording layer. In particular, Claim 1 now sets forth:

. . . a garnet ferrite recording layer of the garnet ferrite having the general formula:



wherein $0 \leq x \leq 3$, $0 \leq y \leq 5$, $-3 \leq u \leq 3$, $-3 \leq v \leq 3$, R is at least one kind of rare earth element such as Dy, and M is a tervalent metal being interchangeable with iron . . .

This particular garnet ferrite composition is not disclosed in Machida, and the anticipation rejection based on Machida should therefore be withdrawn.

Art Rejection Under 35 U.S.C. § 103(a)

Claim 7 was rejected under 35 U.S.C. § 103(a) as unpatentable over Machida in view of Shimokawa, et al. (U.S. Pat. No. 5,501,913) and Tamari (U.S. Pat. No. 5,589,261).

As stated above, Machida does not disclose the particular garnet ferrite recording layer composition set forth in Claim 1, from which Claim 7 depends. Shimokawa, et al. and Tamari fail to remedy this shortcoming, as they also both fail to disclose this garnet ferrite recording layer composition. Thus, even if Shimokawa, et al. and Tamari were properly combinable with Machida, the presently claimed invention would not be realized.

Moreover, Machida, Shimokawa, et al. and Tamari, considered singularly or in combination, fail to suggest the presently claimed invention because the internal compressive stress of the garnet ferrite layer derived from the formation of the layer combination recited in Claim 1 is reduced by the tensile stress provided by the underlayer. In other words, the problem addressed by the presently claimed invention is unique to the specific garnet ferrite composition claimed, and because none of Machida, Shimokawa, et al. and Tamari use this specific composition, the ordinarily skilled artisan would not look to a combination of the teachings of Machida, Shimokawa, et al. and Tamari to resolve problems associated with the use of the claimed composition.

Stated differently, since Machida does not use the specific composition for the first magnetic layer of Claim 1, the problem which the present invention addresses is not encountered in Machida. Therefore, Machida does not provide the motivation to address this problem. Shimokawa, et al. and Tamari do not disclose how to reduce the compressive stress of the garnet ferrite layer having the composition recited in Claim 1. Therefore, even if Machida, Shimokawa, et al. and Tamari are combined, the presently claimed invention would not be achieved, and would not be obvious in view of such a combination.

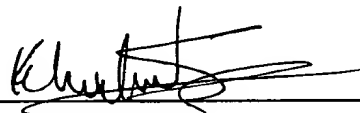
Conclusion

In view of the preceding discussion, Applicants respectfully urge that the claims of the present application define patentable subject matter and should be passed to allowance. Such allowance is respectfully solicited.

If the Examiner believes that a telephone call would help advance prosecution of the present invention, the Examiner is kindly invited to call the undersigned attorney.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By: 
Khaled Shami
Registration No. 38,745

Post Office Box 1404
Alexandria, Virginia 22313-1404
(650) 622-2332

Date: June 6, 2003



Marked-Up Copy of Changes

In the Claims

Claims 1 and 3 have been amended as follows:

1. (Three times amended) A magneto-optical recording medium having a recording layer and a reflective layer on a substrate characterized in that the recording layer has a layered structure comprising:

[in which] a garnet ferrite recording layer of the garnet ferrite having the general formula:



wherein $0 \leq x \leq 3$, $0 \leq y \leq 5$, $-3 \leq u \leq 3$, $-3 \leq v \leq 3$, R is at least one kind of rare earth element such as Dy, and M is a trivalent metal being interchangeable with iron;[,] and

at least one underlayer for the garnet ferrite recording layer selected from the group consisting essentially of a spinel ferrite layer, a rutile-type oxide layer and a hematite layer [are layered],

wherein the garnet ferrite recording layer is formed adjacent to the underlayer after the formation of the underlayer, thereby reducing the internal compressive stress of the garnet ferrite layer by the tensile stress provided from the underlayer.

3. (Once amended) A magneto-optical recording medium [according to Claim 1,] comprising:

a recording layer;

a reflective layer; and

a substrate.

wherein the recording layer has a layered structure in which a garnet ferrite recording layer and at least one underlayer for the garnet ferrite recording layer selected

from the group consisting of spinel ferrite layer, rutile-type oxide layer and a hematite layer are layered, wherein the garnet ferrite recording layer is formed adjacent to the underlayer after the formation of the underlayer, thereby reducing the internal compressive stress of the garnet ferrite layer by the tensile stress provided from the underlayer, wherein said recording layer has tracks on which data are recorded, and said layer structure is formed at least on the tracks, and wherein only garnet ferrite layers are present between said tracks.